



**2SC2073**

Preliminary

**NPN EPITAXIAL SILICON TRANSISTOR**

**NPN SILICON POWER TRANSISTORS**

■ DESCRIPTION

The UTC **2SC2073** is an NPN silicon power transistors, it uses UTC's advanced technology to provide customers with high collector base voltage, etc.

The UTC **2SC2073** is suitable for general purpose Power amplifier, vertical output application.

■ FEATURES

\* High collector base voltage

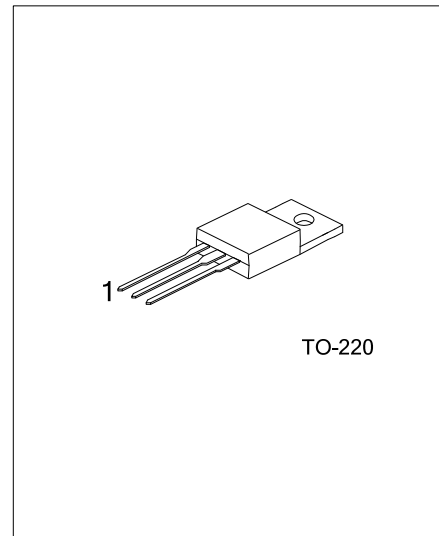
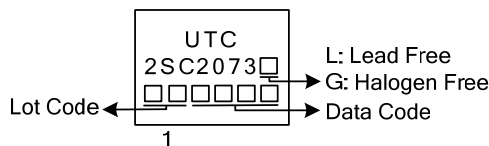
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SC2073L- TA3-T	2SC2073G-TA3-T	TO-220	B	C	E	Tube

Note: Pin Assignment: B: Base C: Collector E: Emitter

<p>2SC2073L-TA3-T</p> <p>(1)Packing Type (2)Package Type (3)Lead Free</p>	<p>(1) T: Tube (2) TA3: TO-220 (3) L: Lead Free, G: Halogen Free</p>
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■ MARKING



■ ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		$V_{CBO}$	150	V
Collector-Emitter Voltage		$V_{CEO}$	150	V
Emitter-Base Voltage		$V_{EBO}$	5.0	V
Collector Current	Continuous	$I_C$	1.5	A
	Peak	$I_{CM}$	3.0	A
Base Current		$I_B$	0.5	A
Total Power Dissipation @ $T_C=25^\circ\text{C}$		$P_D$	25	W
Derate above $25^\circ\text{C}$			0.2	W/ $^\circ\text{C}$
Junction Temperature		$T_J$	-55~+150	$^\circ\text{C}$
Storage Temperature		$T_{STG}$	-55~+150	$^\circ\text{C}$

Notes: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	RATINGS	UNIT
Junction-to-Case	$\theta_{JC}$	5.0	$^\circ\text{C}/\text{W}$

■ ELECTRICAL CHARACTERISTICS ( $T_C=25^\circ\text{C}$  unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
<b>OFF CHARACTERISTICS</b>						
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C=1.0\text{mA}, I_B=0$	150			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C=5.0\text{mA}, I_B=0$	150			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_B=1.0\text{mA}, I_C=0$	5.0			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=120\text{V}, I_E=0$			10	$\mu\text{A}$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=5.0\text{V}, I_C=0$			10	$\mu\text{A}$
<b>ON CHARACTERISTICS (Note 1)</b>						
DC Current Gain	$h_{FE}$	$V_{CE}=10\text{V}, I_C=0.5\text{A}$	40		140	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=0.5\text{A}, I_B=50\text{mA}$			1.5	V
Base-Emitter On Voltage	$V_{BE(ON)}$	$I_C=500\text{mA}, V_{CE}=10\text{V}$	0.65		0.85	V
<b>DYNAMIC CHARACTERISTICS</b>						
Current-Gain -Bandwidth Product	$f_T$	$I_C=0.5\text{A}, V_{CE}=10\text{V}, f=1.0\text{MHz}$	4.0			MHz

Notes: Pulse Test: Pulse Width=300 $\mu\text{s}$ , Duty Cycle $\leq$ 2.0%.

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